This document includes Appendix F: Survey Results with Limited Responses, including State, Manufacturer and Laboratory Results and Appendix G: Marine Sanitation Device Standards for the EPA report Final No-Discharge Zone Evaluation. The reference number is: EPA-842-R-04-001.

Final No Discharge Zone Evaluation

Appendix F: Survey Results with Limited Responses
Appendix G: Marine Sanitation Device Standards

August 2004

APPENDIX F

Survey Results with Limited Responses

1.0 State Survey Implementation and Results

The goal of data collection efforts with the States agencies was to gather time series data on shellfish bed health, beach closures, and other available water quality data with measurements recorded before and after NDZ designation in order to measure the effectiveness of the NDZ. Contacts were made by phone. The interviewer used the State survey questionnaire as the script (a copy can be found in Appendix A-3). The following agencies were contacted:

- Massachusetts Office of Coastal Zone Management
- Massachusetts Division of Marine Fisheries
- Rhode Island Department of Environmental Management
- New Jersey Department of Environmental Protection
- New Jersey Bureau of Marine Water Monitoring
- New York State Department of Environmental Protection
- New York State Department of Environmental Conservation
- Maryland Department of Natural Resources
- Florida Department of Environmental Protection
- Florida Department of Agriculture
- Florida Division of Water Resources
- Monroe County Division of Marine Resources
- Director of Law Enforcement for Destin
- State of Michigan Water Division
- Michigan Department of Natural Resources, Parks and Recreation
- Michigan Department of Environmental Quality
- Michigan Land and Water Management Division
- Wisconsin Department of Natural Resources, Bureau of Law Enforcement
- California Department of Boating and Waterways

After repeated attempts to reach State (and sometimes local) government offices, it became clear that time series data on shellfish bed health, beach closures, and water quality generally are not available in one central location, and often several people or agencies needed to be identified and contacted for each of the different types of data. When contact was made with the appropriate offices, respondents sometimes were reluctant to report the requested data. Pre-designation measurements do not appear to exist for some areas that have been long-standing NDZs; likewise, post-designation measurements do not exist for several newly designated NDZs.

Responses were received from Massachusetts and Maryland; however, the information provided did not include the requested time series data on shellfish bed health, beach closures or water quality. An analysis of water quality data for the NDZs could not be performed with this information. EPA will review the information provided.

2.0 Manufacturer Survey Implementation and Results

To obtain information about the types of marine sanitation devices (MSDs) manufactured or certified, the treatment processes, and the performance of MSDs in removing particular constituents, MSD manufacturers around the world were sent surveys to be completed independently and mailed back (see Appendix A-4). Two sources were used to develop this list of 82 MSD manufacturers: *Final Evaluation of Current Marine Sanitation Device Technology and Existing Regulatory Effluent Limits* (Battelle 2003) and a supplemental list provided by EPA. Surveys were sent to all 82 MSD manufacturers on September 25, 2003, with the goal of obtaining completed surveys from 30 of them. On October 31, 2003, follow-up requests (see Appendix B-2) were sent to manufacturers from which no response had yet been received.

Five MSD manufacturers responded to the survey, providing information on 33 MSD models (25 models from one manufacturer). Because the MSD manufacturer survey data were not to be used for statistical analysis, EPA determined that no further efforts would be made to contact the manufacturers. All information was submitted to EPA. One MSD manufacturer claimed that the data it provided constituted confidential business information (CBI). This CBI information was submitted to EPA in accordance with procedures set forth in 40 CFR Part 2, Subpart B.

3.0 Laboratory Survey Implementation and Results

EPA was interested in data from U.S. Coast Guard accepted independent laboratories concerning the treatment processes and performance of MSDs. The same protocol used to solicit MSD manufacturer information was used for the laboratories. Surveys were sent to 10 laboratories on September 23, 2003, with second requests sent on October 31, 2003 (see Appendix A-5).

One response from a laboratory was received. Because the laboratory survey data were not to be used for statistical analysis, EPA determined that no further efforts would be made to contact the laboratories. All information was submitted to EPA.

Appendix G

Marine Sanitation Device Standards

Marine Sanitation Device Standards

Section 312 of the Clean Water Act requires the use of an operable and certified marine sanitation device (MSD) on all vessels with installed toilets operating on the navigable waters of the United States. An MSD includes any equipment for installation on board a vessel which is designed to receive, retain, treat, or discharge sewage, and any process to treat such sewage.

Section 312(b)(1) of the Clean Water Act requires EPA to promulgate Federal standards of performance for MSDs. These standards are found at 40 CFR Part 140. Section 312(g) (2) of the Clean Water Act directs the USCG to certify MSDs if they meet applicable standards and regulations. Regulations governing the design and construction requirements of MSDs and procedures for certifying that MSDs meet EPA standards are in 33 CFR Part 159.

As of January 30, 1980, a vessel with an installed toilet must be equipped with one of the following types of MSD:

- Type I MSDs
  - Flow-through devices that provide treatment of sewage; rely on a variety of different technologies for treatment prior to discharge, including maceration, chlorination, heating, filtering, or biological processing.
  - Effluent must have a fecal coliform bacterial count no greater than 1000 per 100 milliliters, and must contain no visible floating solids.
  - Can only be used on vessels 65 feet in length or less (33 CFR 159.5 and 159.7).
- Type II MSDs
  - Flow-through devices that provide treatment of sewage; rely on a variety of different technologies for treatment prior to discharge, including maceration, chlorination, heating, filtering, or biological processing.
  - Effluent must have a fecal coliform bacterial count no greater than 200 per 100 milliliters, and suspended solids no greater than 150 milligrams per liter.
  - Vessels over 65 feet in length must be equipped with a Type II or Type III MSD (33 CFR 159.5 and 159.7).
- Type III MSDs
  - Holding tanks that are designed to prevent the overboard discharge of treated or untreated sewage or any waste derived from sewage.
  - Can be installed on vessels of any size.